

TOP MOUNTED LONGITUDINAL MAGAZINE

Present invention concerns a magazine for individual weapons such as a submachine gun, a rifle, a machine-gun and similar.

It is known that a weapon equipped with its magazine must be easy to carry, compact and allow for any shooting position in the field, etc. . . .

In order to fulfill these conditions magazines have already been proposed which are placed either underneath the weapon, or on the side of the weapon, or even on top of the weapon.

In the two first solutions the magazine is placed in such manner that it forms a rather substantial projecting part on the weapon where as a result aforementioned conditions can not possibly be met.

The third type of magazines placed on top of the weapon and along its longitudinal plane do however meet all required conditions.

Present invention concerns magazines of the aforementioned third type.

An initial solution for such a kind of magazine has already been divulged in the U.S. Pat. No. 2,624,241.

This solution consists in providing for a relatively long magazine equipped with a load/supply port at one of its extremities. This magazine is to be connected on the top side of the weapon's body, in the axis of latter, said port locating itself at the location of the supply area. Latter contains a transfer device in the form of a cylinder, activated by the weapon's bolt and destined to lodge a cartridge at each time in order to swivel it over 90 degrees in order to bring it into the axis of the barrel.

This solution however has the major disadvantage that the transfer device consists in a revolving element which not only makes the weapon's manufacturing, and more particularly the magazine, more difficult by increasing its cost price, but such a revolving element increases the jamming risks resulting in an under par operational reliability.

Another solution has been proposed by the Belgian patent No. 872,033.

This patent describes a longitudinal magazine showing a prismatic tube form closed at both extremities and showing in the central part of one of its longitudinal walls, a loading/supply port, two symmetrical transport devices being provided in aforementioned tube of which each rests individually on one end wall of latter.

Said loading/supply port is limited, here and there, by a body presenting three vanes, the surface connecting two successive vanes being cylindrical corresponding to the ammunition's calibre.

The function of these two bodies is to ensure alternately the exit of a cartridge through said port.

The magazine described in the Belgian patent No. 872,033 also presents the disadvantage of consisting in revolving bodies, resulting in a jamming possibility and here as well in an under par operational reliability.

The aim of present invention is to mitigate these disadvantages by suggesting a longitudinal magazine placed on top of the weapon, allowing for the swiveling movement of the cartridges over an angle of 90 degrees without the intervention of rotating elements.

For this purpose present invention consists in a magazine mainly constituted by a first part in a tubular form forming the magazine as such and in which the cartridges are stored with their longitudinal axis in a perpendicular position with respect to the longitudinal axis

of the magazine; a second part consisting in a transfer element showing on both sides an oblong port respectively mutually related by two skewers extending over a 90 degree angle, one of these ports constituting the connection between said parts and while the second port constitutes the connection between said part and the weapon on which the magazine is located. Latter port is namely constituted of lips which, on the one hand, ensure correct positioning of the cartridge while being supplied to the weapon's chamber and, on the other hand, hold ammunition in position in the magazine during its handling and its transport without the weapon.

In this way a highly reliable and efficient operationally safe longitudinal magazine is achieved, the number of parts being reduced to a minimum, while avoiding the use of rotating parts and thus allowing to produce a smaller sized weapon and without the magazine constituting a projection with respect to the weapon as such.

In order to achieve better understanding, an embodiment of a magazine according to the invention is described hereafter by way of example, but without any limitation, whereby reference is made to the accompanying drawings, in which:

FIG. 1 represents a side view of a weapon, as it is, a submachine gun equipped with a magazine according to the invention;

FIG. 2 represents a lateral view of the magazine according to the invention, the magazine being partially loaded;

FIG. 3 represents a view according to arrow F3 in FIG. 2;

FIGS. 4 and 5 represent cross sections according to lines IV—IV and V—V in FIG. 2;

FIG. 6 represents a cross section according to line VI—VI in FIG. 3;

FIG. 7 represents a blown up view of the part indicated by F7 in FIG. 6, the magazine being empty;

FIGS. 8, 9 and 10 represent cross sections, respectively according to lines VIII—VIII, IX—IX and X—X in FIG. 7;

FIG. 11 represents a view according to arrow F11 in FIG. 7;

FIG. 12 represents a view according to arrow F12 in FIG. 11, the wall enclosing the transfer element of the cartridges being removed;

FIG. 13 represents a view according to arrow F13 in FIG. 12;

FIGS. 14, 15 and 16 represent views respectively according to arrows F14, F15, F16 in FIG. 13;

FIGS. 17 and 18 represent a cross section of two positions in the magazine's operation;

FIG. 19 represents, in perspective and schematically, the essential part of the magazine according to the invention, some walls being removed and the magazine being illustrated upside down in order to better illustrate the magazine's operation.

FIG. 1 represents a weapon, as it is a submachine gun 1, equipped with a magazine 1 according to the invention.

The magazine consists mainly as shown in the FIGS. 2 through 6 of two parts 3 and 4. The first part 3 constituting the magazine as such, while the second part 4 is constituted by elements allowing for the cartridge's 5 transfer from part 3 to the weapon. Part 3 presents the form of a tube with rectangular transverse section at the walls 6, 7, 8 and 9 while part 4, forming one of the